

Feed Line



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Editor: Tom Forrest, N4GVK

E-mail: info@w4gso.org

Meet Our Members - Carlton O'Rork, N4DFA

Our member this month is Carlton O'Rork, N4DFA. Carlton is very active in GARA, and donates a lot of time assisting our chief engineer at the repeater site. He also serves as a control operator for the repeaters. He has been a GARA member for 15+ years.

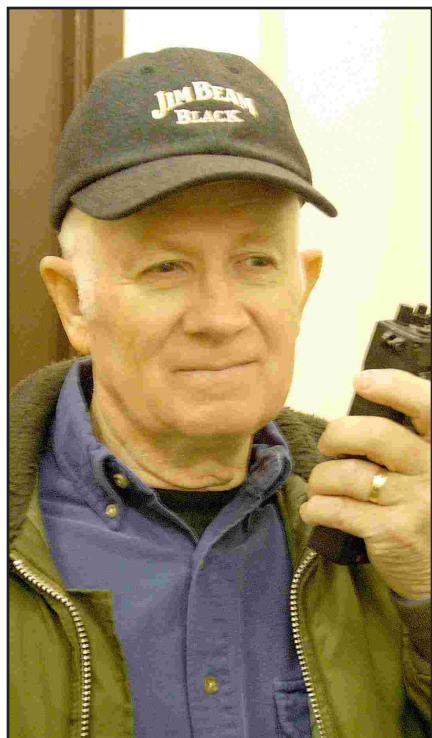
Carlton has been licensed for 26 years and got interested in Amateur radio as a young boy Short Wave listening. He is originally from Richmond, Virginia.

Carlton's wife Patsy got her

Technician License in 1980, which consisted of the General Class level written exam and 5 WPM code (CW) and later converted to General Class. Her call is N4DFB and his is N4DFA as they got them on same weekend administrated by the FCC who paired spouses up at that time if notified. Carlton went on to up grade to General with 13 WPM CW, then Advanced and finally Extra Class.

Carlton's son Stephen got his no-code license as soon as it came out and actually had to take both exams with 30 questions on one and 35 on the other. He missed one question and received his Technician License call KD4BQC. He has a Yeasu FT 411 HT, but is not active at moment.

Carlton sports a good equipment list including: Icom IC-761 with internal Ant. Tuner, Yaesu FT101ZD (back-up) on HF, Dentron Clipperton "L" HF AMP @1200 Watts +. Yaesu External Ant. Tuner FC 102-Dual Meter Peak Reading. Four Icom Mobile Radios VHF/UHF, two in the house and two in Truck & SUV. One Kenwood TM-261A VHF in wife's mobile. Icom W31A Dual-Band HT, Icom T90A Tri-Band HT, Alinco DJ-S11T VHF 320 Milliwatt HT on Motorcycle.



Carlton O'Rork, N4DFA

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Next Meeting May 23

The next meeting of the Greensboro Amateur Radio Association will be held at the Golden Corral Steak House off Wendover. If you'd like to eat be there at 6:30 with the meeting beginning at about 7:15.

The program will be presented by Clark Doggett, KG4HOM. He was dispatched with SORT during the 9/11 attacks. He went to the pentagon and he went to ground zero. He is going to give a talk about always being prepared as a ham. Being part of the solution not the problem.

IN THIS ISSUE

In this issue of the Feed Line, you will find a 2005 membership roster for GARA. Included with the roster is club information along with a listing of local nets and repeater control codes. This is a pull-out sheet. If you, as a GARA member, would like additional copies, please send an e-mail to the editor n4gvk@bellsouth.net.

As protection for our members, the roster will not be included in the PDF web file of this issue of the newsletter.



GARA Meeting Minutes

April 25, 2005

The regular monthly meeting of the Greensboro Amateur Radio Association was held at the Golden Corral Restaurant Monday evening February, 28, at 7:15 PM with 26 members present including two visitors.

The meeting was called to order by President Lee Wimbs, W1MBS. He asked for a moment of silence to honor sick and lost loved ones.

GARA OFFICERS

President

Lee Wimbs, W1MBS

Vice President

John Doggett, KI4BMS

Secretary

Tom Forrest, N4GVK

Treasurer

Ernie Wall, NC4EW

Financial Officer

Al Allred, K4ZKQ

Engineering

Arch, KT4AT

Operations

Roy Smith, N4BYU

Members At Large

Clark Doggett, KG4HOM

Mark Robertson, KG4STP

Circulation

Paul Shepherd, WA4LGX

Webmaster & News Letter Editor

Tom Forrest, N4GVK

President Wimbs noted visitors present. The minutes of the previous meeting were approved as printed in the "Feed Line."

There was no old business reported. Committee reports were presented. Vice President John Doggett had no report. Treasurer Ernie Wall, NC4EW, reported the tower work bill had been paid along with all monthly bills. Al Allred, K4ZKQ, reported on the financial status, saying it was a bit better than forecast at this time, but everything was expected to be in normal ranges through the year. Secretary Tom Forrest, N4GVK, said that activity was normal. He also reported on the newsletter and requested articles.

Engineering Committee report was given by Arch, KT4AT. He said the intermod is back and causing some problems. The newer antenna has worked well for about three months. Arch suspects problems may be on the tower. The club's duplexer will be taken out of service and inspected for problems. Arch also passed around an "RF power filter" he designed to handle up to 300 watts. It will be eventually installed at the site to assist with the intermod problems. The UHF work is progressing and he had spend a lot of time sorting through various GE MasterII parts to get just the right ones.

Operations Chairman and repeater trustee Roy Smith, N4BYU, had no report. Members-at-large, Clark Doggett, KG4HOM had no report. Mark Robertson, KG4STP, reported he was getting information about possibly getting the Scouts involved with a class. He said this should take place maybe during a camporee. He asked for volunteers. Al Allred, K4ZKQ and Bob Schwer, K3ZGA said they would help.

Allen Bradley, KD4IUN, asked for volunteers for the yearly Wrangler/McDonald Soccer tournament Memorial Day weekend May 26. He said if he had enough volunteers, there may not be a need for some persons to work two days.

President Wimbs, once again spoke briefly about upcoming club activities, picnic on September 17 at 5:30 pm and Mt. Mitchell trip in October.

Bob Schwer asked the club for any assistance we could provide his niece in the military to locate supplies not available to overseas troops.

The program for the evening was presented by Robert Young, NC4ME, owner and operator of Tarheel Antennas of Fuquay-Varina, NC. Robert gave a highly informative talk about

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Engineering Report

**By Arch, KT4AT
Engineering Chairman**

VHF Update: There has been major discoveries and progress made this month on the situation reported in the last issue. As explained below, although the problems are not addressed in a final way, we are back to a full functional machine.

First, the power bandpass filter was completed and characterized. It provides over 70 dB of attenuation from DC to 110 MHz (no hole), and 40 dB from around 160 MHz to 1.5 GHz (no hole either). Bandpass loss is around 0.5 dB. And, due to the ample heatsinking, it will safely pass over 300 Watts in continuous duty. Prototype #1, which was under construction and circulated at the last meeting, has been installed on the machine on Friday, May 6. We will have more next month on that.

Second, the grounding kits have been installed on both feedlines (UHF and VHF) at the bottom of the tower South leg. We are now safe there.

Third, I loaned my Wacom duplexer to the Club, installed it on the machine, and took back the Phelps Dodge for evaluation on the bench. Well, ladies and gentlemen, this is where the problem is. The thing tunes very well, provides high rejections (over 106 dB) on both sides, low loss in the passbands on both sides (less than 1 dB), BUT..... it intermods. At least one cavity intermods, on the receive side. Plot of response showing intermod is available. It provides an intercept point on third order intermodulation (IP3) of about +75 dBm. This machine

needs +100 dBm minimum to provide full performance. I tried to cleanup as much as I could reach on it (you cannot reach inside the cans, as they are welded). Connector plates and coupling loops have been taken apart, cleaned up, and resoldered. Bottom plungers and fingerstock have been cleaned up through injected cleaning chemical spray. Still does it.

Now, we will run the soccer tournament on the machine as is today, which is working good (with the power filter and my duplexer). Everybody is pretty much full quieting again in Guilford County (or real close to it).

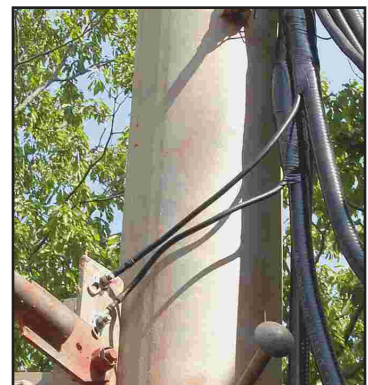
Next I will take care of bringing up UHF, and will focus on that duplexer after that. Don't give up on the old bugger yet !... If the intermod problem is limited to one cavity (or even 2, but that's pushing it), I can find it, and retune to run on 5 cans instead of 6. At 145.15, we need between 85 to 90 dB of rejection (3 cans probably required for that), and at 144.55, we need between 75 and 80 dB (2 cans only may do that). This may be achievable on 5 cans. If not, or if more than one or two cans are involved, then.... the Club will have to replace that duplexer (\$1500 new, but we may find one used in good shape for less than that).

UHF Machine: Now, while parts were on order for the power filter, work proceeded on the UHF side. 46 UHF Mastr2 boards and modules on the receive side have been sorted out and graded according to performance. This includes helical filters (including

the small mixer board inside), IF boards, Local Oscillator and multiplier boards, IF/Squelch/Audio boards, System boards, and +10V modules.

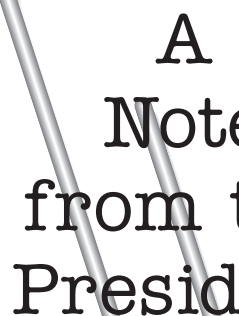
The best have been earmarked, so they can be assembled together in the two machines. This is complete for the first receiver. The result is amazing. Whether the best are put together, or the worst are put together provides a difference in performance of that receiver of close to 10 dB. One is a champ, the other is a deaf dud. Receive sensitivity of the first machine is -126 dBm for 12 dB SINAD. That is with the ARR preamp. This is about 6 dB better than standard GE Mastr2 specification. The UHF preselecting cavity has finally arrived as well.

What remains to be done is mainly on the transmit side. Will sort a bunch of exciters, several PA's. Need to configure the station harness and connections. And finally the RC-96 controller needs attention on a couple of things. I would expect that by the time this update is published, the first machine will be on the air, or within days of being put on the air.



Feed line grounding

from Lee Wimbs, W1MBS, GARA President



A Note from the President

Lee, W1MBS

Be Part Owner...

My friend Bob has a tool for just about everything.

The first time I went to visit Bob, and meet his wife Carol, I was amazed at his tool collection.

His basement workshop looked like a small Home Depot. There very various peg boards, shelves, and tool boxes everywhere.

Now for the interesting part. Some of his tools were only used once, just one time. His policy was to never borrow a tool. If you need to borrow a tool once, you may need to use it again. And, as he pointed out, that tool belonged to someone else. That tool was owned by someone else. And Bob felt it was not right to use something that did not belong to him.

Now we get to the real reason for my note this month. If you use a repeater, you should own that repeater. I realize if that were

true, there would probably be a couple of hundred repeaters on two meters just in the city limits of Greensboro. Perhaps I should have said, "be a part owner of a repeater".

As an amateur radio club, GARA, owning a repeater can be expensive. Consider the original investment. Think about the feed line, the antenna, the duplexer, the controller, and perhaps a backup power source. What if we are lucky enough to have a back up repeater?

Then double the beginning expense.

Now let's add in the normal operating expense. How about repairs on the repeater? Spare parts can be expensive, and some clubs have to add the expense of hiring a qualified technician to the repair. Add to the monthly bill a local telephone line for control, fees for local power companies, and even a rental fee for a location to keep the repeater.

As you drive from city to city, and you are using various repeaters, think about who keeps that repeater in operation. It could be a club like ours whose only income is by membership dues, or it may be owned and operated by an individual who has to pay all the expenses out of his pocket.

It would be nice if all the users of our repeater were members who permitted their dues to be used to maintain and operate the club repeater. This month's comments are directed toward those local amateurs who use the GARA repeaters on a regular basis, and are not members of our club.

Be like Bob, own the item you use, do not borrow, or take for granted, something that belongs to someone else. Be a member of GARA. Be "part owner" of a repeater you can say belongs to you.

Ham Happenings NEWS briefs

Family Loss

Our prayers and sympathy go out to GARA member Jane Doggett, KG4ZQK, and her family for the loss of Jane's mother, Frances Gibson, on April 25.

Do you know of an amateur in the area that's newsworthy? They do not have to be a member of GARA to be eligible. Send your items to the Feed Line newsletter Editor, Tom Forrest, N4GVK at n4gvk@bellsouth.net.

Minutes from Page 2

proper methods of grounding your mobile HF rig. He gave several illustrations and materials used to aid in the installation of strap grounding. He stressed the fact that a good body ground was essential in making the most out of your HF radio mobile. At the end of the talk, a drawing was held for a free "Little Tarheel" antenna. It was won by Mike Jackson, W4ABX.

There being no further business, the meeting was adjourned.

Respectfully submitted, Tom Forrest, N4GVK, Secretary

SNAP SHOTS



Robert Young, NC4ME, owner and operator of Tarheel Antennas of Fuquay-Varina, presented the program for the April meeting of GARA. Robert talked about how to achieve a really good ground on vehicles for mobile installations (photo at left). At the end of his presentation, a drawing was held for a "Little Tarheel" antenna which was won by GARA member Mike Jackson, W4ABX (above right). Robert's antennas can be seen on his web site : www.tarheelantennas.com (Photos by N4GVK)



Arch, KT4AT and Carlton, N4DFA, check a few readings on the repeater before leaving the shack. A good afternoon was spent attaching a ground system to the feed lines on the GARA equipment.



Meet the member from Page 1

Mosley TA-33 Tri-Band mounted on 50 foot Rohn Tower, Diamond X200A VHF/UHF Vertical. 40 Meter Square Horizontal Loop, mounted at about 42 feet for HF. His favorite band is 15 meters along with a favorite loop antenna.

Some of his Ham activities include DXing, participating in

storm watch , bike-a-thons and MS Walks.

He is a retired financial Analyst from the Federal Government. Numerous training schools and certificates while working for Government such as IRS Accounting Course, Dunn & Bradstreet Accounting Course, Business Laws of Real Estate, etc. Many while in US Marine Corps,

Greensboro Police Dept. Citizens Academy and others.

Carlton is a Life Member of the Marine Corps League, member of the Marine Corps Heritage Foundation, Charter member of the Crusier Club USA - motorcycle club.

Area Activities

FOURTH MONDAY – at 6:30 PM, the **Greensboro Amateur Radio Association** has their regular monthly meeting at the Golden Corral on Landview Dr., off W. Wendover Ave. Please plan to gather at 6:30 PM for dinner. The meeting is scheduled to start at 7:15 PM

CLUB NETS:

SUNDAYS – weekly at 9 PM, the **GARA News and Information Net**. This net features NewsLine and is on the 145.150, W4GSO repeater. Roy Smith, N4BYU is always looking for net controls. Contact him if you would like to help.

THURSDAYS – The **Guilford County ARES Net** meets on the 145.150 repeater (100 Hz. tone) at 9 PM.

TUESDAYS – at 8 PM, the **2 Meter SSB Net** meets on 144.225 Mhz. USB. Chris Thompson, K4HC is the net control station.

WEDNESDAYS – The **Guilford Amateur Society** holds their weekly net on the 145.250, W4GG repeater with an 88.5 Hz. tone. Jim Hightower, W4JLH is the net controls.

TUESDAYS – at 8:30 PM The **Triad SkyWarn Net** meets on the 147.225, K4ITL repeater, no tone required.

OTHER ACTIVITIES :

FIRST MONDAY – The **Guilford County A.R.E.S.** monthly meeting is held at 1002 Meadowood St. off W. Wendover Ave, in the EMS building, beginning at 7 PM.

THIRD MONDAY – at 6 PM The **Guilford Amateur Society** holds their monthly meeting at the Golden Corral on Landview Dr., off W. Wendover Ave. Dinner at 6:30 PM and the business meeting is slated to begin and 7 PM.

SATURDAYS – at the K&W Cafeteria on Big Tree Way, hams get together for **Saturday Breakfast** at 7:30 AM. Talk-in is on the 145.150, W4GSO repeater, with 100 Hz. tone.

MONDAYS & FRIDAYS – at 11 AM, Greensboro Hams get together for lunch. On Monday they meet at various locations and on Friday lunch is at the K&W Cafeteria off South Holden Road. Talk-in is on the 145. 150, W4GSO repeater with a 100 Hz. tone. On Mondays, give a call to see where everyone is meeting.

EVERY FRIDAY – at 8 PM (approximately) Greensboro Hams get together for coffee at Starbucks in Quaker village Shopping center off W. Friendly Ave.

Greensboro Amateur Radio Association

P.O. Box 7054

Greensboro, NC 27417



Web:
www.w4gso.org

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